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## **Overview of the Emergency Planning and Community Right-to-know Act (EPCRA) & the Clean Air Act (CAA) Section 112 (r) Risk Management Program (RMP)**

### EPCRA

Title III of SARA (EPCRA) establishes authorities for emergency planning and preparedness, emergency release notification reporting, community right-to-know reporting, and toxic chemical release reporting. It is intended to encourage state and local planning for, and response to releases of hazardous substances and to provide the public, local governments, fire departments, and other emergency officials with information concerning potential chemical hazards present in their communities. The implementing regulations for emergency planning, emergency release notification, and the chemicals subject to these regulations are codified in 40 CFR part 355. The implementing regulations for community right-to-know reporting (or hazardous chemical reporting) are codified in 40 CFR part 370.

Subtitle A of EPCRA establishes the framework for local emergency planning. The statute requires that EPA publish a list of extremely hazardous substances (EHSs). The EHS list was established by EPA to identify chemical substances that could cause serious irreversible health effects from accidental releases 40 CFR part 355 (52 FR 13378, April 22, 1987). The Agency was also directed to establish a threshold planning quantity (TPQ) for each extremely hazardous substance. There are 355 solids, liquids and gaseous substances on the list; TPQs range from 1 to 10,000 pounds.

The purpose of the EHSs list is to focus initial efforts in the development of state and local contingency plans. Inclusion of a chemical on the EHSs list does not mean state or local communities should ban or otherwise restrict use of a listed chemical. Rather, such identification indicates a need for the community to undertake a program to investigate and evaluate the potential for accidental exposure associated with the production, storage or handling of the chemical at a particular site and develop a chemical emergency response plan around those risks.

Under EPCRA section 302, a facility that has an EHS on-site in excess of its TPQ must notify the State Emergency Response Commission (SERC) and Local Emergency Planning Committee (LEPC), as well as participate in local emergency planning activities. Under the Statute, the LEPC shall then develop a community emergency response plan. Emergency Response plans contain information that community officials can use at the time of a chemical accident. Again, according to the Statute, the plans shall:

- Identify facilities and transportation routes of extremely hazardous substances;
- Describe emergency response procedures, on and off site;
- Designate a community coordinator and facility coordinator(s) to implement the plan;
- Outline emergency notification procedures;
- Describe how to determine the probable affected area and population by releases;
- Describe local emergency equipment and facilities and the persons responsible for them;
- Outline evacuation plans;
- Provide a training program for emergency responders (including schedules); and,
- Provide methods and schedules for exercising emergency response plans.

EPA and National Oceanic and Atmospheric Administration (NOAA) Office of Response and Restoration have developed a system of software applications used widely to plan for and respond to chemical emergencies. This system is called CAMEO and it was developed to assist front-line chemical emergency

planners and responders. Emergency responders and planners use CAMEO to access, store, and evaluate information critical for developing emergency plans. In addition, CAMEO supports regulatory compliance by helping users meet the chemical inventory reporting requirements of the EPCRA. The CAMEO system integrates a chemical database and a method to manage the data, an air dispersion model, and a mapping capability. All modules work interactively to share and display critical information in a timely fashion.

Subtitle B of EPCRA established the community right-to know requirements in order to ensure information on chemicals in the community is provided to the public as well as emergency responders. Under EPCRA sections 311 and 312, facilities that have either (1) a hazardous chemical present at or above 10,000 pounds or (2) an EHS present at or above its TPQ or 500 pounds—whichever is the lesser, are required to submit an Emergency and Hazardous Chemical Inventory form (Tier II) and a Material Safety Data Sheet (MSDS) for that chemical to their SERC, LEPC and local fire department. A chemical is hazardous as defined under the Hazard Communication Standard (HCS) of the Occupational Safety and Health Act (OSHA). There is not a separate list of hazardous chemicals. If a facility is required by OSHA to develop and/or maintain a MSDS for that chemical and it is present at or above the threshold discussed above, it must be reported. Local fire departments receive this information and should use it to understand the chemical present at facilities in their community and what to do to respond to an accident at the facility.

Section 311 and 312 of EPCRA makes available to the local and State emergency planners information on other chemicals and facilities, beyond those identified under section 302, that they may wish to include in their emergency planning efforts. EPA has specified in guidance that Tier II information under section 312 will provide specific information on the quantities and locations of hazardous chemicals. Thus, sections 311 and 312 provide information beneficial to the emergency planning required under Subtitle A. The facilities identified as a result of that subtitle are only a "first cut" of the facilities and potential chemical hazards for which emergency planning may be necessary.

EPCRA Section 313 requires EPA and the States to collect data annually on releases and transfers of certain toxic chemicals from industrial facilities and make the data available to the public through the Toxics Release Inventory (TRI). The current TRI toxic chemical list contains 593 individually-listed chemicals and 30 chemical categories (including three categories containing 62 specifically-listed chemicals). Ammonia is on the list; however, ammonium nitrate is not. A facility must report to TRI if it is in a specific industrial sector (e.g., manufacturing, mining, electric power generation), employs 10 or more full-time equivalent employees, and manufactures or processes greater than 25,000 lbs. of a TRI-listed chemical or otherwise uses greater than 10,000 lbs. of a listed chemical in a given year.

TRI is a publicly-accessible EPA database containing information on disposal and other releases of over 650 toxic chemicals from more than 20,000 U.S. industrial facilities. TRI data can be downloaded or accessed through a variety of analytical tools and applications. TRI includes information about:

- On-site releases and other disposal of toxic chemicals to air, surface water and land;
- On-site recycling, treatment and energy recovery associated with TRI chemicals;
- Off-site transfers of toxic chemicals from TRI facilities to other locations;
- Pollution prevention activities at facilities;
- Releases of lead, mercury, dioxin and other persistent, bioaccumulative and toxic (PBT) chemicals; and

- Facilities in a variety of industry sectors (including manufacturing, metal mining, and electric power generation) and some federal facilities.

### RMP

The CAA states that the risk management program regulations cover the owner or operator of a stationary source with more than a threshold quantity of a section 112(r) regulated substance in a process. The section 112(r) chemicals and thresholds overlap with chemicals listed under other rules, but are not identical to those on any other list. The section 112(r) list includes 77 acutely toxic chemicals listed on the EPCRA extremely hazardous substance (EHS) list, but also includes 63 flammable gases and liquids. The thresholds generally are higher than the EPCRA thresholds and range from 500 pounds to 10,000 pounds. Section 112(r) thresholds are determined by process, not by site; consequently, sources may list more than a section 112(r) threshold quantity in their EPCRA reports, based on maximum quantity on site, and not be subject to section 112(r). The section 112(r) chemical list and corresponding thresholds for each chemical are published at 40 CFR 68.130. Under CAA section 112 (r), EPA is required to review the list of chemicals every 5 years or by its own motion or by petition. EPA reviews hazardous chemical incidents on an ongoing basis to determine whether any chemical warrants listing or delisting. Additionally, during the proposal process for the list rule, EPA revised the final list under litigation settlement provisions with the Institute of Makers of Explosives. In 1997 EPA revised the list to raise the minimum concentration of HCl from 30% to 37% under settlement of litigation with GE.

A covered facility is required to conduct review the hazards associated with the covered substance, process and procedures as well as develop a prevention program and an emergency response program. The “Hazard Review” must identify opportunities for equipment malfunction or human error (such as flood or fire), that could in turn cause the accidental release of the covered substance, as well as safeguards to prevent the potential release, and steps to detect and monitor for a release. These requirements are documented in a Risk Management Plan (RMP) that is submitted to EPA. Covered facilities must implement the RMP and update their RMPs every 5 years or when certain changes occur. The goal of EPA’s Risk Management Program is to prevent accidental releases of substances that can cause serious harm to the public and the environment from short-term exposures, and to mitigate the severity of releases that do occur.

Under the CAA section 112(r) Risk Management Program, facilities must submit and risk management plan which includes:

- Facility hazard assessments, including worst-case release and alternative release scenarios;
- Facility accident prevention activities, such as use of special safety equipment, employee safety training programs, and process hazards analyses conducted by the facility;
- Past chemical accidents at a facility; and
- Facility emergency response programs and plans.

RMP facilities are placed into one of three program levels, based roughly on the risk of an accidental release to the surrounding community and the facility’s history of accidental releases.

- Program 1 means the facility’s worst case scenario does not reach offsite public receptors and it has had no accidental releases within the past 5 years. This program level requires minimal accident prevention requirements, but these facilities are still required to coordinate emergency response actions with local responders and submit an RMP to EPA.

- Program 2 is a default middle-tier program level that captures all RMP facilities that do not fall into either Programs 1 or 3. This level requires facilities to meet a streamlined set of accident prevention requirements (in addition to meeting all other requirements of Program 3 facilities).
- Program 3 facilities include facilities whose worst-case scenario reaches offsite public receptors or facilities that have had accidental releases within the past five years and that either fall into one of specified 10 industry classification codes (selected based on the industry's history of serious accidents), or are already covered by the OSHA Process Safety Management standard. Facilities in RMP Program 3 must meet the highest level of accident prevention requirements, which include implementing 12 accident prevention program elements specified in the regulation (e.g., these facilities must have written operating procedures, carry out a program to maintain the mechanical integrity of process equipment, conduct periodic compliance audits, involve employees in development of risk management program implementation, etc).

Also under the Clean Air Act Amendments of 1990, the owners and operators of stationary sources producing, processing, handling or storing an RMP substance or any other extremely hazardous substance have a general duty to identify hazards which may result from such releases using appropriate hazard assessment techniques, to design and maintain a safe facility taking such steps as are necessary to prevent releases, and to minimize the consequences of accidental releases which do occur. This requirement is used proactively to prevent accidents when hazards are observed that could lead to a chemical accident or punitively if, after an accident, a facility failed to properly carry out this statutory requirement. Under the General Duty, facilities are expected to comply with recognized and generally accepted good engineering practices.

Both EPCRA and the CAA section 112(r) Risk Management Program encourage communication between facilities and the surrounding communities about chemical safety and chemical risks. Regulatory requirements, by themselves, will not guarantee safety from chemical accidents. Those who are handling hazardous substances must take the responsibility and act to prevent, prepare for and respond to chemical emergencies. Information about hazards in a community will allow local emergency officials and the public to work with industry to prevent accidents.